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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,807	06/20/2005	Hiroyuki Honda	274135US0PCT	6688
22850 7590 03/05/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHU, YONG LIANG	
			ART UNIT 1626	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		03/05/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/05/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/539,807	Applicant(s) HONDA ET AL.	
	Examiner Yong Chu	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim 5 is amended by the Amendment filed on 18 December 2006. Claims 1-8 are pending.

Response to Lack of Unity

Applicants' traversal is on the ground(s) that the requirement for restriction requirement was never issued, and Applicants have never had the opportunity to make an election, and therefore the restriction requirement due to lack of unity of invention is not proper. The arguments have been considered and found persuasive. The previous restriction requirement dated on 08/17/2007 is withdrawn. However, Applicant's allegation on the patentability of the cited Seitz publication is not found persuasive, and will be addressed further below.

Response to Arguments

The Amendments by Applicants' representative Daniel J. Pereira dated on 18 December 2006 has been entered.

Argument over rejection of claims under 35 U.S.C. §112 2nd paragraph

The rejection over claims 1, 5 and 7 under 35 U.S.C. §112 2nd paragraph for the indefinite term "a substituent inert to etherification" has been withdrawn after considering the examples provided in the Specification on page 7. The Examiner interprets said term according to the specification.

Argument over rejection of claims 1, 2, and 5-8 under 35 U.S.C. §103(a)

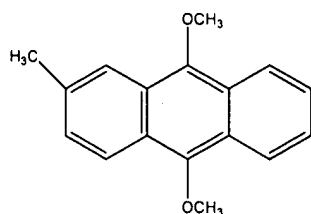
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Applicant's arguments over rejection of claims 1,2, and 5-8 under 35 U.S.C. §103(a) have been considered, but found not persuasive. Applicants' arguments over the said rejection are answered by the Examiner as follows:

- The cited Seitz publication by the Examiner was discussed on page 1 of the Specification, and the Applicants cited this reference to the Office. This statement has nothing to do with the patentability of the instant rejection, because Applicants have the duty to disclose any related material to the Office.
- The cited reference does not describe all of the limitations of the claims and, in particular, the manner in which the reactants are mixed for the reaction. This argument is not persuasive. As stated in the previous Office action, the reference does not have to teach all the limitations of the claimed subject matters, since this is a rejection under 35 U.S.C. §103(a). The different manner of solvent mixing is obvious to one skilled in the chemical art. Discovery of an optimum value of a result effective variable is not patentable if such discovery is within one skilled in the art. A prima facie case of obviousness may be rebutted in optimizing a variable only when results are unexpectedly good. In re Boesch, 205 USPQ 215.
- "What Seitz teaches is that using chloride or bromide as opposed to an iodide as the alkylating agent yields unfavorable results." line 7-8 from the bottom of page 7 under REMARKS/ARGUMENTS. This statement is misinterpretation of the previous Office action. As shown on page 5-6 of the previous Office action as follows:

"Seitz et al. teach a specific process for producing anthracene diether compound

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of Formula

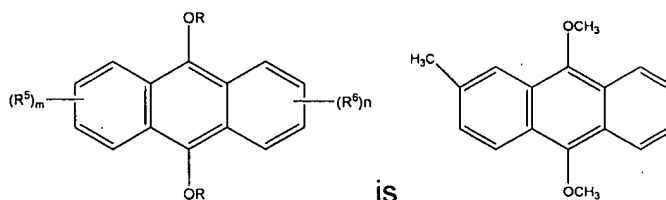
by reacting **methyl iodide** with alkali salt of a 9,10-

anthracenrdiol in an aqueous medium of water and dichloromethane in the presence

of phase transfer agent methyltrialkyl(C8-10)ammonium-chloride (Adogen 464[®])

(see reaction 6, on page 687). This process reads on the instant claims 1, 2, and 5-

8 wherein:



An anthracene diether of formula (I)

wherein $R^5 = R^6 = H$ and R is methyl; an aqueous medium containing dichloromethaneand water; an etherifying agent is **methyl iodide**; and the quaternary ammoniumcompound is **methyltrialkyl(C₈₋₁₀)ammonium**-chloride (Adogen 464[®]).” As matter of

fact, methyl iodide was used in the cited reference.

It also should be pointed out that chloride or bromide is etherifying agent as claimed subject matter in the rejected claims, and cannot be excluded. The better yield of using iodide in the Example disclosed in the Specification is not relevant to the argument. Though understanding the claim language may be aided by explanations contained in the written description, It is improper to import claim limitation from the Specification. See MPEP 2111.01 (II).

Therefore, the rejection over claims 1,2, and 5-8 under 35 U.S.C. §103(a) is maintained.

Argument over rejection of claims 3 and 4 under 35 U.S.C. §103(a)

Applicant's arguments over rejection of claims 3 and 4 have been considered, and are found persuasive. Because the polar solvents claimed in claims 3 and 4 are not obvious over dichloromethane as used in the reference condition in view the definition of polar solvent in the Specification. Therefore, the rejection of claims 3 and 4 has been withdrawn.

Claim Objections

Claims 3 and 4 are objected to as being dependent upon a rejected base claim 1 or 2, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Specification

The first paragraph of the specification does not contain continuing data to which the instant specification claims benefit from. An appropriate amendment is required.

Conclusions

- Claims 3 and 4 are objected.
- Claims 1-2 and 5-8 are rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Chu whose telephone number is 571-272-5759. The examiner can normally be reached on 7:00 am - 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

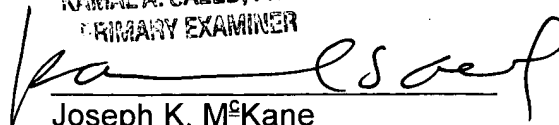
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Yong Chu, Ph.D.
Patent Examiner
Art Unit 1626

KAMALA A. SAEED, PH.D.
PRIMARY EXAMINER



Joseph K. McKane
Supervisory Patent Examiner
Art Unit 1626